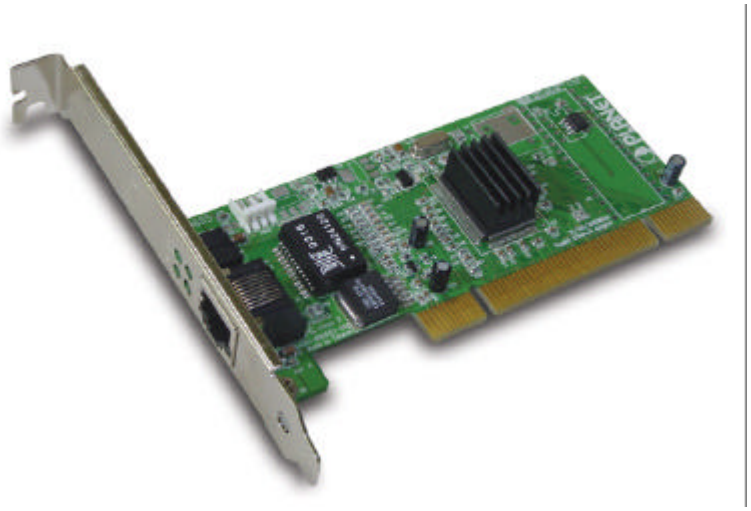
# 32bit PCI Gigabit Ethernet Network Adapter

## ENW-9605

## Quick Installation Guide



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## FCC Caution

To assure continued compliance. (example-use only shielded interface cables when connecting to computer or peripheral devices). Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the Following two conditions: ( 1 ) This device may not cause harmful interference, and ( 2 ) this Device must accept any interference received, including interference that may cause undesired operation.

## CE Mark Warning

This is a Class B product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

## Revision

User's Manual for PLANET 32bit PCI Gigabit Ethernet Adapter

Model: ENW-9605

Rev: 1.0 (Aug, 2003)

Part No. EM-ENW9605

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# Chapter 1 Introduction

The ENW-9605 is a 10/100/1000Mbps 32-bit Peripheral Component Interconnect (PCI) Local Bus Ethernet adapter designed to address high-performance system application requirements. The bus-master architecture provides very high data throughput as it runs in the 32-bit PCI bus of the server's mainboard rather than waiting on the CPU.

The ENW-9605 supports both current motherboards (32-bit/33MHz PCI) and also the new PCI interface (32-bit/66MHz) and operating systems of the next generation, future-proofing your investment. Equipped with a RJ-45 port, the ENW-9605 provides up to 2000 Mbps in Full-duplex bandwidth capacity to high-end workstations. This adapter delivers the highest performance for demanding applications, while providing a tremendous flexibility for the existing network infrastructures. In addition, with advanced features like Wake-On-LAN management and Plug-and-Play support, users can not only wake up and power on their workstations from anywhere on the network but also save tremendous time on configuring their systems.

## 1.1 Package Content

Check that your package contains the following items:

- ENW-9605 * 1
- Driver Disk * 1
- Quick Installation Guide * 1

Contact the place of purchase if an item is missing or damaged.

**Note:** Be sure to retain your proof of purchase, as it is required to receive warranty service.

## 1.2 Verifying Your System Requirements

Before installing the ENW-9605, be sure your computer meets the following requirements:

**Hardware**

- CPU: 233MHz or Faster
- RAM: 64MB (Minimum)
- PCI Local Bus 2.1 or 2.2 compliant

**Software**

- Microsoft Windows 98/Me/NT/2000/XP/Server 2003
- Novell 4.x (or higher)
- Linux Kernel 2.2 (or higher)

## 1.3 Gathering Tools And Documentations

To install the adapter, you need the following items:

- ✍✍ A suitable screw driver
- ✍✍ Your operating system documentation
- ✍✍ Your system unit documentation, including any service documentation

# Chapter 2 Hardware Installation

## 2.1 Product Description

### 2.1.1 Features

- IEEE802.3, IEEE802.3u, IEEE802.3ab Compliant
- Auto-Negotiation determines the transmission speed at 10/100/1000 Mbps and Full/Half duplex mode
- Supports CSMA/CD protocol
- Supports Auto-MDI/MDI-X to swap the transmission and reception
- Integrated 128KB Frame Buffer Memory
- Programmable cache line size
- Supports WOL (Wake on LAN) function to power management support (through PCI 2.2 interface)
- Supports PCI V2.2, 32-bit, 33/66 MHz
- ACPI Power Management, compliant to ACPI 2.0

### 2.1.2 Front Panel And LEDs

The faceplate of ENW-9605 has 4 LEDs: 10, 100, 1000, FDX. Figure 2-1 shows the faceplate of ENW-9605. Table 2-1 explains the function and state of the LEDs.

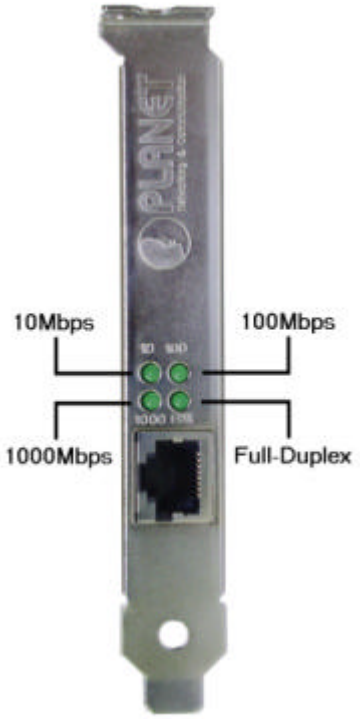



**Figure 2-1** Faceplate of ENW-9605

| LED | Color | Description |
|---|---|---|
| **10** | **Green** | Lights to indicate this card is working transfer rate is 10Mbps. |
| **100** | **Green** | Lights to indicate this card is working transfer rate is 100Mbps. |
| **1000** | **Green** | Lights to indicate this card is working transfer rate is 1000Mbps. |
| **FDX** | **Green** | Lights to indicate this card is work in Full-Duplex mode. |

**Table 2-1** Functions and State of the LEDs

## 2.2 ENW-9605 Installation

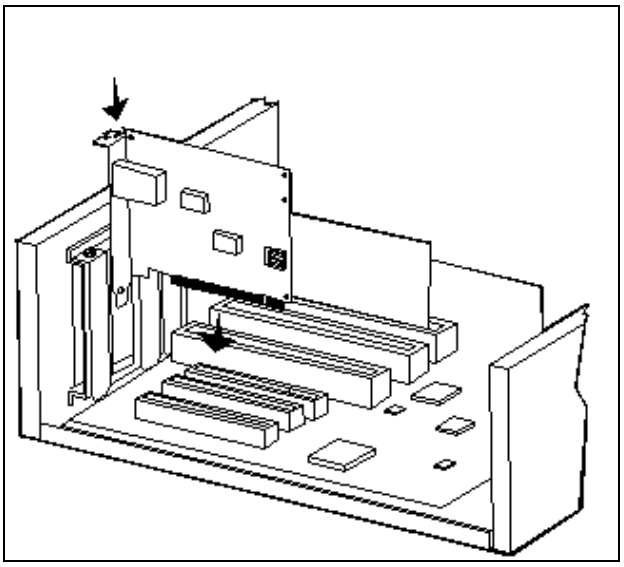
Step 1: Turn off the PC.

Step 2: Remove any metal decorations from your hands and wrists.

Step 3: Remove the cover from your PC.

Step 4: Locate an empty, non-shared bus mastering PCI slot and remove the corres ponding back plate. Save the screw for use in Step 6.

Step 5: Carefully insert the adapter into the chosen slot and press firmly with proper push to ensure it is fully seated in the slot.



Step 6: Secure the adapter with the screw you saved in step 4.

Step 7: Replace the PC cover.

Step 8: Power on the PC and refer to next chapter to install the driver of this adapter.

**Note**: Please do not install the ENW-9605 in a shared PCI slot. Avoid any PCI slot next to an ISA slot because this is often a shared slot and does not support bus mastering.

# Chapter 3 Driver Installation

A device driver must be installed before your ENW-9605 can be used with your computer. This chapter describes how to install the driver for various operating systems. Before you begin the driver installation process, make sure you have the installation disks for your computer's operation system nearby.

## 3.1 Installing Driver To Windows 2000

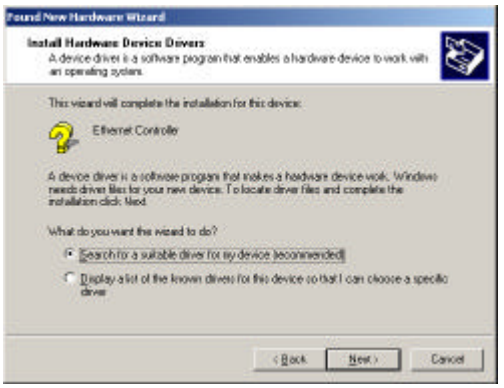
Make sure the ENW-9605 has been successfully installed in your computer before you start to install the driver. If this is the first time you are installing the ENW-9605 into your computer, Window will automatically detect it and updates the hardware information database. To install the driver provided, follow these steps:

***Note: The following installation operates under Window 2000. Procedures will be similar to Window 98/Me. About Windows XP/Server2003 driver installation, please refer to next section.***

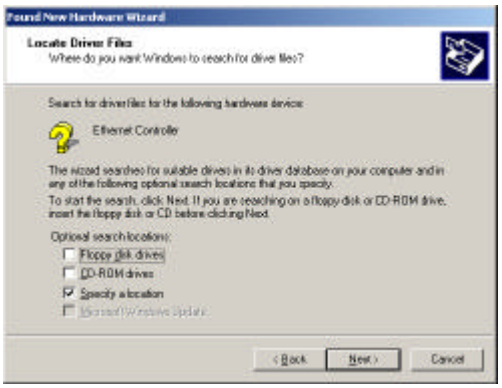
1. Install ENW-9605 into your PC's PCI slot.
2. Power on the PC and insert Driver Disk into CD-ROM drive.
3. Windows will automatically detect ENW-9605 and ask the user to install driver. Please click "Next".

Found New Hardware Wizard
Welcome to the Found New Hardware Wizard
This wizard helps you install a device driver for a hardware device.
To continue, click Next.
< Back
Next >
Cancel

4. Please select the first option and click "Next" to continue.

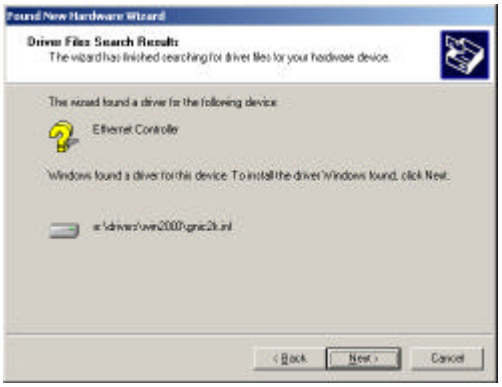

Found New Hardware Wizard
Install Hardware Device Drivers
A device driver is a software program that enables a hardware device to work with an operating system.
This wizard will complete the installation for this device:
Ethernet Controller
A device driver is a software program that makes a hardware device work. Windows needs driver files for your new device. To locate driver files and complete the installation click Next.
What do you want the wizard to do?
Search for a suitable driver for my device (recommended)
Display a list of the known drivers for this device so that I can choose a specific driver
< Back
Next >
Cancel

5. Select "Specify a location" and click "Next".

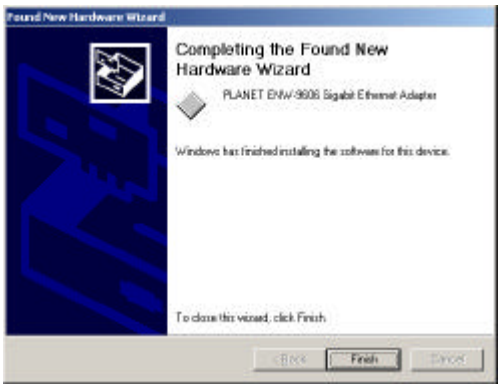

Found New Hardware Wizard
Locate Driver Files
Where do you want Windows to search for driver files?
Search for driver files for the following hardware device:
Ethernet Controller
The wizard searches for suitable drivers in its driver database on your computer and in any of the following optional search locations that you specify.
To start the search, click Next. If you are searching on a floppy disk or CD-ROM drive, insert the floppy disk or CD before clicking Next.
Optional search locations:
Floppy disk drives
CD-ROM drives
Specify a location
Microsoft Windows Update
< Back
Next >
Cancel

6. You can click “Browse” to find the driver location. (Assume "A" is your Floppy, the driver can be found in A: \Win2000). Please click “OK” to continue.

7. Windows will show this screen to prompt you that it found a driver for the device you are installing, please click “Next” to continue.


Found New Hardware Wizard
Driver Files Search Results
The wizard has finished searching for driver files for your hardware device.
The wizard found a driver for the following device:
Ethernet Controller
Windows found a driver for this device. To install the driver Windows found, click Next.
< Back
Next >
Cancel

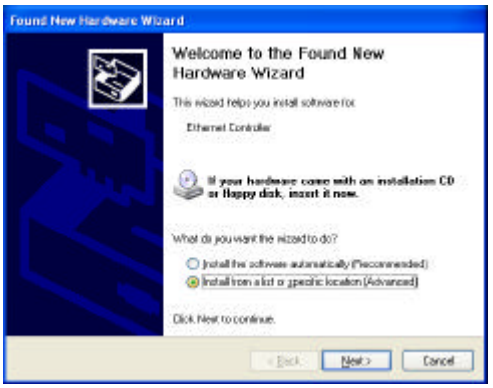
8. Please click “Finish” to complete the driver installation.


Found New Hardware Wizard
Completing the Found New Hardware Wizard
PLANET ENW-9806 Gigabit Ethernet Adapter
Windows has finished installing the software for this device.
To close this wizard, click Finish.
< Back
Finish
Cancel

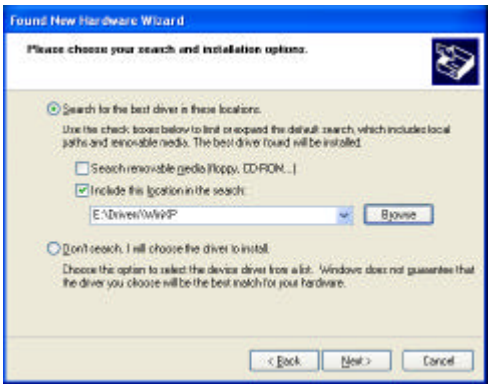
(For Win98/Me, Windows will ask you restart your PC when driver installation finished.)

## 3.2 Installing Driver To Windows XP/ Server 2003

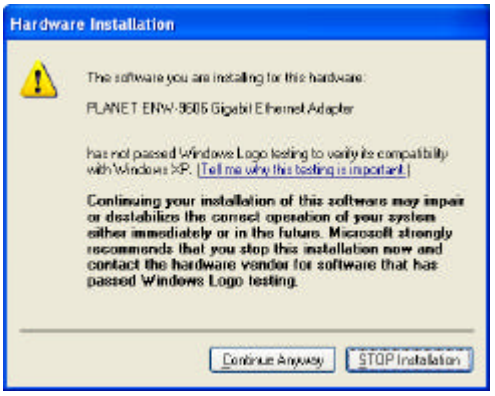
1. Install ENW-9605 into your PC's PCI slot.
2. Power on the PC and insert Driver Disk into CD-ROM drive.
3. Windows XP will detect ENW-9605 and ask you to install driver. Please select the second option and click "Next".


Found New Hardware Wizard
Welcome to the Found New Hardware Wizard
This wizard helps you install software for:
Ethernet Controller
If your hardware came with an installation CD or floppy disk, insert it now.
What do you want the wizard to do?
Install the software automatically (Recommended)
Install from a list or specific location (Advanced)
Click Next to continue.
< Back
Next >
Cancel

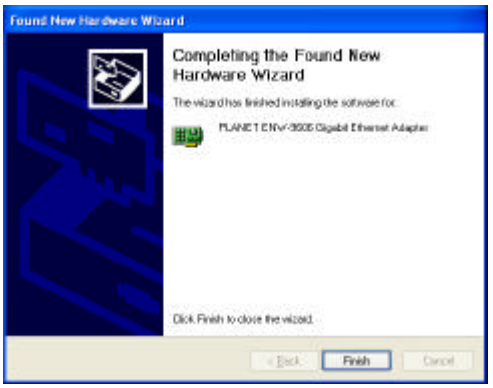
4. Please select "Include this location in the search" and then click "Browse" to find out ENW-9605 driver location to install driver. (Assume "A" is your Floppy, you can find out ENW-9605 driver in A:\WinXP). Please click "Next" to continue.


Found New Hardware Wizard
Please choose your search and installation options.
Search for the best driver in these locations.
Use the check boxes below to limit or expand the default search, which includes local paths and removable media. The best driver found will be installed.
Search removable media (floppy, CD-ROM...)
Include this location in the search:
E:\Drivers\WinXP
Browse
Don't search. I will choose the driver to install.
Choose this option to select the device driver from a list. Windows does not guarantee that the driver you choose will be the best match for your hardware.
< Back
Next >
Cancel

5. WinXP will show you this dialog box to prompt you the driver has not passed Windows logo testing, please press "Continue Anyway" to continue.


Hardware Installation
The software you are installing for this hardware:
PLANET ENW-9605 Gigabit Ethernet Adapter
has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)
Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
Continue Anyway
STOP Installation

6. Please click "Finish" to complete the driver installation.


Found New Hardware Wizard
Completing the Found New Hardware Wizard
The wizard has finished installing the software for:
Click Finish to close the wizard.
< Back
Finish
Cancel

# Chapter 4 Specifications

## 4.1 Cable Specifications

| Ethernet Type | Cable Requirements | Maximum Length |
|---|---|---|
| 10BASE-T | Category 3 or better, UTP or STP | 328 ft (100M) |
| 100BASE-TX | Category 5 or better, UTP or STP | 328 ft (100M) |
| 1000BASE-T | Category 5e or better, UTP or STP | 328 ft (100M) |

**Caution:** Please do not use telephone cables. Telephone cables do not support Ethernet or Fast Ethernet.

There are two types of cables: Straight Through Cables and Crossover Cables. Category 5 UTP/STP cable has eight wires inside the sheath. The wires form four pairs. Straight Through Cables has same pin-out at both ends while Crossover Cables has a different pin arrangement at each end.

## 4.2 Technical Specifications

| | |
|---|---|
| **Standards** | IEEE 802.3, IEEE 802.3u, IEEE 802.3x IEEE802.3ab |
| **Protocol** | CSMA/CD |
| **Connectors** | RJ-45 |
| **Bus Type** | PCI 2.1, PCI 2.2, ACPI |
| **LEDs** | 10, 100, 1000, FDX |
| **Maximum Segment Length** | 100M (328 ft) over Category 5 twisted-pair cable |
| **Cabling Requirements** | 4-pair, Category 5, Category 5 enhanced |
| **Speed** | 10/100/1000 Mbps at Half duplex mode<br>20/200/2000 Mbps at Full duplex mode |

## 4.3 Environmental Information

| | |
|---|---|
| **Dimensions** | 120 mm x 53 mm X 22 mm (L x W x H) |
| **Weight** | 55 g |
| **Operating temperature** | 0° to 40° C (32° to 107° F) |
| **Storage temperature** | -40° to 70° C (-40° to 158° F) |
| **Operating humidity** | 20% to 95% relative humidity, non-condensing |
| **Storage humidity** | 20% to 95% relative humidity, non-condensing |

## 4.4 Standard Conformance

| | |
|---|---|
| **EMC Certification** | FCC Class B, CE |



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